Monthly Oversight Report 44
ACS NPL Site
Griffith, Indiana
July 31, - August 27, 2004

BLACK & VEATCH

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Black & Veatch Special Projects Corp.

USEPA/RAC VII
American Chemical Services RAO (057-ROBF-05J7)

BVSPC Project 46526
BVSPC File C.3
September 8, 2004

Mr. Kevin Adler
U.S. Environmental Protection Agency
77 W. Jackson Boulevard (SR-6J)
Chicago, Illinois 60604-3590

Subject: Monthly Oversight Summary Report
No. 44 for August 2004

Dear Mr. Adler:

Enclosed is the Monthly Oversight Summary Report No. 44 for August 2004 for the American Chemical Services Superfund Site in Griffith, Indiana.

If you have any questions, please call (312-683-7856) or email (campbelllm@bv.com).

Sincerely,

BLACK & VEATCH Special Projects Corp.

Larry M. Campbell, P.E.
Site Manager

Enclosure

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Monthly Oversight Summary Report No. 44
ACS Superfund Site WA57, 46526.238

Reporting Period: Month of August (July 31, 2004 - August 27, 2004).
BVSPC O/S Dates: August 5, 11, 19, and 26, 2004.

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	4	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Austgen	1	General Contractor
Ryan Construction	1	General Contractor
Walsh & Kelly	2	SBPA Grading Contractor
Independent Environmental Services	2	SBPA Trenching Contractor
Midwest Engineering Services, Inc.	1	Gravel Compaction Testing Contractor
Boart Longyear	3	ISVE Well Drilling Contractor
Microbac (formerly Simalabs)	1	GWTP Sampling Contractor

Construction Activities

Major Activities:

- Montgomery Watson Harza continued to operate the On-Site Containment Area Still Bottoms Pond Area and Off-Site Containment Area in-situ soil vapor extraction systems, processing vapors through the Global thermal oxidizer unit 2.
- Walsh & Kelly completed regrading and compacting the gravel cover in the Still Bottoms Pond Area.
- Ryan made piping modifications to connect the new auxiliary and the existing Off-Site Containment Area blower systems.
- Austgen cleared and graded access pathways to monitoring wells in the wetlands.
- Microbac (formerly Simalabs) collected samples from the groundwater treatment plant for routine process monitoring.
- Montgomery Watson Harza held construction coordination meetings at the site on August 5, 19, and 26, 2004.

Activities Performed:

Montgomery Watson Harza (MWH) continued to operate the groundwater treatment plant (GWTP) during the reporting period at 25 to 30 gpm except for isolated periods when the GWTP was shut down for maintenance or power interruptions. Microbac (formerly Simalabs) collected samples from the GWTP for routine process monitoring.

MWH reported that the diluted leaked sulfuric acid is still being temporarily stored in a group of poly tanks within secondary containments. MWH is currently pumping sulfuric acid into the GWTP system from a 55-gallon drum that does not have independent secondary containment. MWH is planning to provide such secondary containment for this drum. MWH reported that it will replace the leaking sulfuric acid tank with a new 900 gallon poly tank and will retain a contractor to recoat the secondary containment floor and walls. MWH reported that it will transfer 900 gallons of the diluted sulfuric acid into the new tank and dispose/recycle the remainder off-site.

MWH continued to operate the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) and Off-Site Containment Area (OFCA) in-situ soil vapor extraction (ISVE) systems, processing vapors through the Global thermal oxidizer unit 2. This unit was shut down August 1 for 4 hours for regular maintenance and then returned to operation. The OFCA ISVE system operated with the same 14 SVE wells that have been used for the last few months. The ONCA SBPA ISVE system operated with 12 SVE wells, but a different group of 12 wells was operated beginning in the last week of the reporting period.

Delivery of the new heat exchanger for the thermal oxidizer unit 1 has been delayed by 2 to 3 weeks because of manufacturing delays at Global; it is expected to arrive by the end of August. Other elements of thermal oxidizer unit 1 are ready for assembly as soon as the heat exchanger arrives.

MWH reported that Walsh & Kelly completed grading and compacting the gravel in the ONCA SBPA cover area in preparation for future placement of the asphalt final cover. MWH reported that Midwest Engineering Services, Inc. (MES) made inplace density tests on August 13 at 25 locations throughout the SBPA cover area and that all tests met the compaction requirement ($\geq$ 90% of Proctor density). Ryan poured concrete pads around the stick-up ISVE wells and power poles in the SBPA.

Boart Longyear (BL) mobilized to the site on August 19 to conduct inspection of ONCA SBPA ISVE well SVE59 and air sparge (AS) point AS5. MWH conducted a pre-work safety briefing of BL personnel. BL overdrilled, removed, and replaced the casings with a new well and AS point. Both the ISVE well and AS point were replaced with screens having larger slots and coarser granular filter material. BL also collected 3-inch-diameter Shelby tube samples of subsurface materials at three non-performing SVE wells. BL completed the investigation and demobilized on August 20. MWH inspected the drilling operations, the removed well materials, and the recovered subsurface soils. MWH operated ISVE wells near AS5 and SVE59 on August 18 in an attempt to minimize vapors issuing from the overdrilled wells. MWH shut down the ONCA SBPA ISVE well system and de-energized the power lines to the system during intrusive

activities. BL personnel wore Level B personal protective equipment with airline respirators during this work.

MWH reported that the new OFCA auxiliary blower and knockout tank were delivered on August 4 and were placed in the recently placed conex container that will be used as the auxiliary blower shed. Ryan made piping modifications to connect the new auxiliary and the existing blower systems. The OFCA ISVE blower was shut down for a few hours daily, as needed to make these connections. Vidimos fabricated and Ryan installed a spill containment system beneath the knockout tank in the auxiliary blower shed.

Austgen cleared vegetation from and graded the pathways to monitoring wells in the wetlands in preparation for subsequent placement of wood chips. This work will be completed in the next reporting period, depending on the weather.

MWH reported that the chemical oxidation (chem ox) injection work to remediate the plume in the South Area is scheduled to begin August 30 and should be completed by September 24. In late August, MWH measured the existing groundwater level in the South Area to assure that the water level is not too low to effect remediation of the smear zone. MWH reported that it will collect soil vapor samples from borings near the house at 1002 Reder Road at the beginning of the chem ox injection work.

MWH reported that the third quarter semi-annual groundwater sampling will be conducted during the period September 20-30, and that the annual residential groundwater sampling will be conducted during that same period. Water levels will be measured in monitoring and residential wells.

MWH held three construction coordination meetings at the site on August 5, 19, and 26, 2004. MWH and EPA elected to resume weekly construction coordination meetings from mid-August through September because of the increased construction activity.

Attached are BVSPC weekly reports No. 179 through 182, correspondence, log book notes, and photographs of the daily activities. BVSPC's crew conducted oversight of the major field activities on August 5, 11, 19, and 26, 2004. BVSPC's crew attended three construction coordination meetings at the site on August 5, 19, and 26, 2004.

Topics of Concern:

- Air monitoring activities during Eagle Services work vacuuming the ONCA SBPA ISVE system wells were not clearly established with respect to volatile organic compounds.
- The sulfuric acid tank in the GWTP leaked into its secondary containment. BVSPC expressed concern that a job hazard analysis had not been prepared or evaluated for the work of transferring the acid and cleaning the leaking tank.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.

- MWH transferred the leaked and diluted sulfuric acid into poly tanks for temporary storage. MWH completed an incident form detailing the incident that occurred and the health and safety procedures that would be followed when mitigating the incident.

Upcoming Activities:

- MWH to install the new heat exchanger for the Durr thermal oxidizer unit 1.
- MWH to install a new knockout tank in the ISVE system near the GWTP.
- MWH to complete expansion of the OFCA ISVE blower system.
- MWH to continue proving out the ONCA SBPA ISVE system wells.
- MWH to continue operating the GWTP and the OFCA and ONCA SBPA ISVE systems.
- MWH to complete placement of the final SBPA asphalt cover.
- MWH to place the wood chips in the wetland paths to the monitoring wells.
- MWH to evaluate soil vapor intrusion into the house basement resulting from the smear zone in the South Area.
- MWH to initiate chemical oxidation injections in the off-site South Area plume.
- MWH to perform monitoring well maintenance and conduct third quarter groundwater sampling of monitoring wells and residential wells.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.
- MWH and EPA to conduct Pre-Final Inspection of construction in September.

Signature: Larry Campbell Date: September 8, 2004

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Weekly Oversight Summary Report No. 179
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of August 2, 2004.
BVSPC O/S Dates: August 5, 2004 (Mr. Gailey)

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	2	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Ryan Construction	1	Mechanical Contractor
Austgen	3	General Contractor
Simalabs	1	GWTP Sampling Contractor

Construction Activities

Major Activities:

- Montgomery Watson Harza continued operating the groundwater treatment plant and the in-situ soil vapor extraction systems.
- Montgomery Watson Harza received the auxiliary blower and knockout tank for the Off-Site Containment Area in-situ soil vapor extraction system.
- Ryan began making piping connections for the auxiliary blower.
- Austgen cleared and graded pathways to monitoring wells in the wetlands.
- Montgomery Watson Harza held the biweekly construction coordination meeting at the site on August 5, 2004.

Activities Performed:

Montgomery Watson Harza (MWH) reported that the diluted leaked sulfuric acid is still being temporarily stored in a group of poly tanks within secondary containments. MWH is evaluating offsite recycling and/or reuse options for the acid. MWH is currently pumping sulfuric acid into the groundwater treatment plant (GWTP) system from a 55-gallon drum that does not have independent secondary containment. MWH is planning to provide such secondary containment for this drum.

MWH reported that it continued to operate the GWTP at 30 gpm. MWH continued to operate the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) and Off-Site Containment Area (OFCA) in-situ soil vapor extraction (ISVE) systems, processing vapors through the Global thermal oxidizer unit 2. This unit was shut down August 1 for 4 hours for regular maintenance and then returned to operation. Delivery of the new heat exchanger for the thermal oxidizer unit 1 has been delayed by 2 to

3 weeks because of manufacturing delays at Global: it is expected to arrive by the end of August. Other elements of thermal oxidizer unit 1 are ready for assembly as soon as the heat exchanger arrives.

The OFCA ISVE system continues to operate with 14 wells. The new OFCA auxiliary blower and knockout tank were delivered on August 4 and were placed in the recently placed conex container that will be used as the auxiliary blower shed. Ryan is making the piping connections to the existing blower system which was shut down for a few hours on August 4 and 5 to make these connections. Ryan obtained measurements for the fabrication of a spill containment system beneath the knockout tank. The ONCA SBPA ISVE system continues to operate with 12 wells.

Austgen cleared vegetation from and graded the pathways to monitoring wells in the wetland in preparation for subsequent placement of wood chips.

MWH reported that final grading and compaction of the gravel in the SBPA will be performed in the next couple of weeks, followed by pouring of concrete pads around stick-up wells and power poles. MWH reported that asphalt paving of the final SBPA cover will begin after Labor Day (September 6).

MWH reported that the chemical oxidation (chem ox) injection work to remediate the plume in the South Area is scheduled to begin after Labor day—and will take 3 to 4 weeks—pending receipt and resolution of EPA comments. EPA will provide comments by end of the week or early next week, but expects them to be minor. MWH reported that it must first measure the existing groundwater level in the South Area to assure that the water level is not too low to effect remediation of the smear zone. MWH reported that it will collect soil vapor samples from borings near the house at 1002 Reder Road at the beginning of the chem ox injection work.

MWH reported that Boart Longyear will mobilize to the site on August 16 to conduct inspection of one ONCA SBPA ISVE well and one air sparge (AS) point (overdrill, remove, and replace them with new well and AS point). MWH responded to BVSPC/EPA comments regarding the plans for this inspection:

- MWH plans to reinstall the well and point in the same size borehole as originally used.
- MWH will pressurize the AS point and monitor decrease in pressure to assess its success.
- MWH will take 3-inch-diameter Shelby tube soil samples.
- MWH will assure that drillers have appropriate health and safety certifications for work in Level B respiratory protection.
- MWH will test Shelby tube samples in the laboratory to assess pertinent properties of the soil to convey soil vapors to/from the wells and AS points.

MWH reported that the third quarter semi-annual groundwater sampling will be conducted during the week of September 20, and that the annual residential groundwater sampling will be conducted during that same period. Water levels will also be measured in monitoring and residential wells.

Black & Veatch Special Projects Corp. attended MWH's biweekly construction coordination meeting at the site on August 5, 2004.

Topics of Concern:

- Air monitoring activities during Eagle Services work vacuuming the ONCA SBPA ISVE system wells were not clearly established with respect to volatile organic compounds.
- The sulfuric acid tank in the GWTP leaked into the secondary containment. BVSPC expressed concern that a job hazard analysis had not been prepared or evaluated for the work of transferring the acid and cleaning the leaking tank.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.
- MWH transferred the leaked and diluted sulfuric acid into poly tanks for temporary storage. MWH completed an incident form detailing the incident that occurred and the health and safety procedures that would be followed when mitigating the incident.

Upcoming Activities:

- MWH to install the new heat exchanger for the Durr thermal oxidizer unit 1.
- MWH to complete expansion of the OFCA ISVE blower system.
- MWH to continue proving out the ONCA SBPA ISVE system wells, to include the investigation of the installation of ONCA SBPA ISVE well and AS point.
- MWH to continue operating the GWTP and the OFCA and ONCA SBPA ISVE systems.
- MWH to complete grading and compaction of the gravel on the SBPA cover, place concrete pads around wells and power poles, and place the final asphalt cover over the ONCA SBPA.
- MWH to place the wood chips in the wetland paths to the monitoring wells.
- MWH to evaluate soil vapor intrusion into the house basement resulting from the smear zone in the South Area.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.
- MWH and EPA to conduct Pre-Final Inspection of construction in early September.

Signature: Larry Campbell Date: August 17, 2004

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WEEKLY CONSTRUCTION MEETING MINUTES
FOR AUGUST 5, 2004 MEETING
AMERICAN CHEMICAL SERVICE, NPL SITE
GRIFFITH, INDIANA

MEETING DATE: Thursday, August 5, 2004

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS

ATTENDEES:
Kevin Adler – U.S. EPA
Chad Gailey – BVSPC
Rob Adams – MWH
Todd Lewis – MWH
Lee Orosz – MWH
Richard McCarroll - MWH
Chris Daly – MWH
Jon Pohl – MWH
Chad Smith – MWH
Matthew Mesarch – MWH
Amy Clore - MWH

TOPICS:

Health and Safety Summary

There have been no health and safety issues since the last meeting on July 22nd. Activities at the site since the last meeting have included operation of the GWTP, regrading of the gravel layer in the Still Bottoms Pond Area (SBPA) cover area, installation of the new blower shed and In-Situ Vapor Extraction (ISVE) piping in the Off-Site area, and operation of the Off-Site Area and SBPA (On-Site) ISVE systems.

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating at approximately 30 gallons per minute (gpm). The sulfuric acid from the tank leak in June is being held in temporary storage containers inside the GWTP. A 55-gallon drum of acid is currently being used to supply acid to the GWTP. The future location of a permanent acid storage structure will be arranged within the next two weeks.

Off-Site Area/SBPA ISVE Systems

Thermal Oxidizer/Scrubber Unit 2 (Therm Ox 2) is currently treating vapors from the Off-Site ISVE system, the SBPA ISVE system, and the GWTP's aerated equalization tank (T-102). Therm Ox 2 was shutdown on August 1st for 3-4 hours for routine

maintenance. Currently there are 14 wells operating in the Off-site area and 12 wells in the On-Site area.

The arrival of the new heat exchanger for Thermal Oxidizer/Scrubber Unit 1 (Therm Ox 1) has been delayed due to a processing holdup by the unit's fabricator. The scrubber, pump, and other components of Therm Ox 1 have been assembled in place, ready to be tested when the new heat exchanger arrives. The estimated arrival of the heat exchanger is in 2-3 weeks.

The new blower shed for the Off-Site ISVE system was delivered to the site July 26th. The Off-Site ISVE system was shutdown periodically August 4th and 5th while pipe tie-ins for the new blower shed were connected. Installation of a building heater and containment system for the new blower shed is anticipated to be completed by the end of August.

Work will begin on August 16th for the evaluation of one ISVE well and one air sparge point. MWH received suggestions from the U.S. EPA regarding the Memorandum Scope of Work – Air Sparge/ISVE Well Inspection (MWH, July 15, 2004). Their recommendations were discussed and are conclusions are detailed below:

1. The U.S. EPA suggested increasing the bore hole diameter as a means to increase vapor extraction. MWH indicated that increasing the bore hole diameter would not increase vapor migration through the native soil where contamination is present and would only delay potential filter pack clogging; not prevent it. The goal of the well reinstallation is to use a larger grain size filter pack to determine if the existing filter pack material contains too many fines which may be contributing to clogging and air flow restriction..

2. The U.S. EPA requested an explanation regarding how MWH was going to gauge the success of the air sparge point investigation. After the air sparge point is reinstalled with a larger screen slot size, MWH plans to test the air sparge point by applying a known pressure to the air sparge point using an air compressor or blower. This pressure will be approximately the same pressure that the air sparge blower system can actually supply. Once the desired pressure is achieved, the compressor will be shut off and the pressure in the air sparge point will be monitored every 5 minutes for 20 minutes. If the readings indicate a decrease in pressure indicating that air is being successfully injected than the air sparge re-installation will be considered successful. If the pressure readings indicate little or no change from the initial value greater than plus or minus 10 percent then MWH will conclude that the air sparge well is still incapable of transmitting air to the subsurface.

3. The U.S. EPA requested the diameter of the Shelby tubes. MWH plans to use 3-inch tubes at a minimum distance of 2-feet from the wells in order to avoid the bentonite column of the well and ensure sampling of native soil.

4. The U.S. EPA asked if MWH would require the contractor to provide proof of an up to date medical exam and clearance to wear a respirator. MWH will require both provisions and will not allow work to commence without such proof as specified in the site-specific Health and Safety plan. Also, Boart Longyear, the drilling company who originally installed the wells, will be performing the work and they are familiar with the site's requirements.

5. The U.S. EPA requested the standards and criteria to which success would be achieved through the Shelby tube data. The soil samples collected with the Shelby tubes will be submitted for analysis of porosity and moisture content. The data will be used to assess the extent of the capillary fringe and compare its depth to the depth of the ISVE well screens to determine if the pore space moisture is limiting the vapor flow. Specific standards and criteria have not been established because this determination may be based on quantitative information and professional experience as well as the qualitative analytical data.

6. The U.S. EPA questioned if Level B personal protection equipment would be worn and if the subcontractors were aware of such requirement. MWH has made the subcontractors aware of the Level B requirements and will compose an addendum to the work plan specifying such requirements. Also, Boart Longyear, the drilling company who originally installed the wells, will be performing the work and they are familiar with the site's requirements.

The discussion will be documented in the meeting minute and the minute will be attached to the Scope of Work as a means to transmit this information to the field personnel.

SBPA Final Cover

In preparation for the placement of the SBPA final cover the gravel component of the cover is being regraded. Fine grading of the cover area will be performed the week of August 9th. In addition, concrete form-work has been placed around the ISVE stickup wells in preparation of pouring concrete pads around these wells. The anticipated start date for paving is September 7th, with construction of a pavement test pad. The target completion date for paving is September 10th. The SBPA cover preparation work is scheduled to occur concurrently with the drilling work for the well investigation.

Wetlands Access Path

Grading on the wetlands path started on August 5th. It is anticipated that the new path should be completed by the week of August 9th, weather permitting. MWH will photograph the process for records and potential utilization in a project update.

Chemical Oxidation Application

The U.S. EPA stated it will send the approval forms for the chemical oxidation (Chem Ox) application to MWH by August 6th and that the work may be scheduled. The current plan for the full-scale application includes three treatments, the third of which is

estimated to take place the summer of 2005. The first treatment, anticipated to start the first week of September, will include injections at 380 points and is expected to take 3-4 weeks to complete. MWH will take water level measurements August 6th to confirm that the water level is currently not too low for effective Chem Ox application. Before the Chem Ox work takes place MWH will be collecting a soil gas sample from outside the residential house located at the corner of Reder Road and Colfax Ave. This test results will be used to determine if it is necessary for air sampling to occur inside the residence.

Residential Well Sampling

Residential well sampling is scheduled to begin on September 20th and go through the end of the month coinciding with the 3rd quarter groundwater water level readings. On August 6th, a letter will be sent to the Agencies identifying the wells that will be sampled. Along with the sampling, maintenance will be performed on various wells. This work will entail replacing broken locks and well redevelopment.

Look Ahead Schedule

August 6, 2004 through August 19, 2004	• Off-Site ISVE system and SBPA ISVE system operation • GWTP/BWES/PGCS operation and routine maintenance • Continue work on Off-site blower system expansion • Continue work preparing the SBPA cover area for placement of the asphalt layer • Removal and replacement of one ISVE well and one air sparge point • Processing GWTP acid from leak cleanup • Finish wetlands path
Health and Safety Items to Monitor	• Potential exposure to vapors during well drilling. All drilling personnel will wear Level B PPE • Safety issues associated with the SBPA asphalt work • Safety issues associated with the Off-Site expansion. The system will be shut down while personnel work on the electrical portions of the blower building. • Safety issues associated with crane lift for the new heat exchanger. • Routine daily tailgate health and safety meetings for all work activities

Next Construction Meeting – Thursday, August 19, 2004, 10 AM

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Weekly Oversight Summary Report No. 180
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of August 9, 2004.
BVSPC O/S Dates: August 11, 2004 (Mr. Campbell).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	2	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Ryan Construction	1	Mechanical Contractor
Austgen	1	General Contractor
Walsh & Kelly	2	SBPA Asphalt & Grading Contractor
Midwest Engineering Services, Inc.	1	Gravel Compaction Testing Contractor

Construction Activities

Major Activities:

- Montgomery Watson Harza continued operating the groundwater treatment plant and the in-situ soil vapor extraction systems.
- Ryan continued making piping connections for the auxiliary blower.
- Walsh & Kelly continued final grading and compaction of gravel in Still Bottoms Pond Area.
- Midwest Engineering Services, Inc. performed compaction testing of gravel in Still Bottoms Pond Area. All 25 tests passed the compaction requirement.

Activities Performed:

Montgomery Watson Harza (MWH) reported that the diluted leaked sulfuric acid is still being temporarily stored in a group of poly tanks within secondary containments. MWH is evaluating offsite recycling and/or reuse options for the acid. MWH is currently pumping sulfuric acid into the groundwater treatment plant (GWTP) system from a 55-gallon drum that does not have independent secondary containment. MWH is planning to provide such secondary containment for this drum.

MWH reported that it continued to operate the GWTP at 25 to 30 gpm. MWH continued to operate the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) and Off-Site Containment Area (OFCA) in-situ soil vapor extraction (ISVE) systems, processing vapors through the Global thermal oxidizer unit 2.

The OFCA ISVE system continues to operate with 14 wells. Ryan continued making piping modifications to connect the auxiliary and existing blower systems. The ONCA SBPA ISVE system continues to operate with 12 wells.

MWH reported that Walsh & Kelly was retained to complete grading and compacting the gravel in the ONCA SBPA. MWH reported that Midwest Engineering Services, Inc. (MES) made inplace density tests at 25 locations throughout the SBPA cover area on August 13 and that all tests met the compaction requirement ($\geq$ 90% of Proctor density). MWH reported that pouring of concrete pads around stick-up wells and power poles will begin next week.

MWH reported that Boart Longyear was delayed on another project and will mobilize to the site on August 23 to conduct inspection of one ONCA SBPA ISVE well and one air sparge (AS) point (overdrill, remove, and replace them with new well and AS point).

Topics of Concern:

- Air monitoring activities during Eagle Services work vacuuming the ONCA SBPA ISVE system wells were not clearly established with respect to volatile organic compounds.
- The sulfuric acid tank in the GWTP leaked into the secondary containment. BVSPC expressed concern that a job hazard analysis had not been prepared or evaluated for the work of transferring the acid and cleaning the leaking tank.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.
- MWH transferred the leaked and diluted sulfuric acid into poly tanks for temporary storage. MWH completed an incident form detailing the incident that occurred and the health and safety procedures that would be followed when mitigating the incident.

Upcoming Activities:

- MWH to install the new heat exchanger for the Durr thermal oxidizer unit 1.
- MWH to complete expansion of the OFCA ISVE blower system.
- MWH to continue proving out the ONCA SBPA ISVE system wells, to include the investigation of the installation of ONCA SBPA ISVE well and AS point.
- MWH to continue operating the GWTP and the OFCA and ONCA SBPA ISVE systems.
- MWH to place concrete pads around wells and power poles in the SBPA cover and place the final asphalt cover.
- MWH to place the wood chips in the wetland paths to the monitoring wells.
- MWH to evaluate soil vapor intrusion into the house basement resulting from the smear zone in the South Area.

- MWH to investigate benzene levels in the lower aquifer in the wetlands area.
- MWH and EPA to conduct Pre-Final Inspection of construction in early September.

Signature: Larry Campbell Date: August 18, 2004

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Weekly Oversight Summary Report No. 181
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of August 16, 2004.
BVSPC O/S Dates: August 19, 2004 (Mr. Campbell).

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	6	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Ryan Construction	1	Mechanical Contractor
Austgen	1	General Contractor
Independent Environmental Services	2	SBPA Trenching Contractor
Boart Longyear	3	ISVE Well Drilling Contractor

Construction Activities

Major Activities:

- Montgomery Watson Harza continued operating the groundwater treatment plant and the in-situ soil vapor extraction systems.
- Ryan continued making piping connections for the auxiliary blower.
- Ryan poured concrete slabs around some soil vapor extraction wells and power poles.
- Independent Environmental Services performed trenching around the perimeter of the Still Bottoms Pond Area gravel cap.
- Boart Longyear overdrilled, removed, and replaced an air sparge point and a soil vapor extraction well and collected Shelby tube samples of subsurface material.
- Montgomery Watson Harza held the biweekly construction coordination meeting at the site on August 19, 2004.

Activities Performed:

Montgomery Watson Harza (MWH) reported that the diluted leaked sulfuric acid is still being temporarily stored in a group of poly tanks within secondary containments. MWH reported that it plans to purchase and install a large poly tank to replace the acid tank that leaked. MWH plans to transfer as much as possible of the diluted sulfuric acid into the new tank. The remainder of the diluted acid will be disposed of, recycled, and/or reused off-site. MWH is currently pumping sulfuric acid into the groundwater treatment plant (GWTP) system from a 55-gallon drum that does not have independent secondary containment. MWH is planning to provide such secondary containment for this drum.

MWH reported that it continued to operate the GWTP at 25 to 30 gpm. MWH continued to operate the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) and Off-Site Containment Area (OFCA) in-situ soil vapor extraction (ISVE) systems, processing vapors through the Global thermal oxidizer unit 2.

The OFCA ISVE system continues to operate with 14 wells. Ryan continued making piping modifications to connect the auxiliary and existing blower systems; accordingly, the OFCA ISVE blower system was shut down, as needed, during this construction period. The ONCA SBPA ISVE system continues to operate with 12 wells.

MWH reported that Ryan poured concrete pads around some stick-up wells and all power poles early in the week. MWH reported Independent Environmental Services performed some trenching services at the perimeter of the SBPA gravel cover.

Boart Longyear (BL) mobilized to the site on August 19 to conduct inspection of ONCA SBPA ISVE well SVE59 and air sparge (AS) point AS5. MWH conducted a pre-work safety briefing of BL personnel. BL overdrilled, removed, and replaced the casings with a new well and AS point. BL also collected 3-inch-diameter Shelby tube samples of subsurface materials at three non-performing ISVE wells. BL completed the investigation and demobilized on August 20. MWH inspected the drilling operations and the removed well materials and recovered subsurface soils. MWH operated ISVE wells near AS5 and SVE59 on August 18 in an attempt to minimize vapors issuing from the overdrilled wells. MWH shut down the ONCA SBPA ISVE well system and de-energized the power lines to the system during intrusive activities. BL personnel wore Level B personal protective equipment with airline respirators during this work.

Black & Veatch Special Projects Corp. attended MWH's construction coordination meeting at the site on August 19, 2004.

Topics of Concern:

- Air monitoring activities during Eagle Services work vacuuming the ONCA SBPA ISVE system wells were not clearly established with respect to volatile organic compounds.
- The sulfuric acid tank in the GWTP leaked into the secondary containment. BVSPC expressed concern that a job hazard analysis had not been prepared or evaluated for the work of transferring the acid and cleaning the leaking tank.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.
- MWH transferred the leaked and diluted sulfuric acid into poly tanks for temporary storage. MWH completed an incident form detailing the incident that occurred and the health and safety procedures that would be followed when mitigating the incident.

Upcoming Activities:

- MWH to install the new heat exchanger for the Durr thermal oxidizer unit 1.
- MWH to install a new knockout tank in the ISVE system near the GWTP.
- MWH to complete expansion of the OFCA ISVE blower system.
- MWH to continue proving out the ONCA SBPA ISVE system wells.
- MWH to continue operating the GWTP and the OFCA and ONCA SBPA ISVE systems.
- MWH to complete placement of concrete pads around SVE wells in the SBPA cover and place the final asphalt cover.
- MWH to place the wood chips in the wetland paths to the monitoring wells.
- MWH to evaluate soil vapor intrusion into the house basement resulting from the smear zone in the South Area.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.
- MWH and EPA to conduct Pre-Final Inspection of construction in early September.

Signature: Larry Campbell Date: August 25, 2004

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WEEKLY CONSTRUCTION MEETING MINUTES FOR AUGUST 19, 2004 MEETING AMERICAN CHEMICAL SERVICE, NPL SITE GRIFFITH, INDIANA

MEETING DATE: Thursday, August 19, 2004

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS

ATTENDEES:
Kevin Adler – U.S. EPA
Larry Campbell – BVSPC
Pete Vagt – MWH
Lee Orosz – MWH
Richard McCarroll - MWH
Chris Daly – MWH
Jon Pohl – MWH
Chad Smith – MWH

TOPICS:

Health and Safety Summary

There have been no health and safety issues since the last meeting on August 5th. On August 11th, the overhead door at the groundwater treatment plant (GWTP) malfunctioned and needed to be replaced. The area around the door was secured with caution tape. A contractor was onsite that afternoon removing the broken door. A new door was installed the following day.

Activities at the site since the last meeting have included operation of the GWTP, regrading of the gravel layer in the Still Bottoms Pond Area (SBPA) cover area, pouring of concrete pads around SBPA in-situ vapor extraction (ISVE) wells, installing the equipment for the new blower shed in the Off-Site area, and operation of the Off-Site Area and SBPA (On-Site) ISVE systems.

Groundwater Treatment Plant (GWTP) Status

The GWTP is currently operating between 25 and 30 gallons per minute (gpm). There have been no issues with the GWTP since the last meeting on August 5th. Routine maintenance has been performed on various GWTP components.

Off-Site Area/SBPA ISVE Systems

Thermal Oxidizer/Scrubber Unit 2 (Therm Ox 2) is currently treating vapors from the Off-Site ISVE system and the SBPA ISVE system. Therm Ox 2 was temporarily

shutdown on August 16th and 18th for routine maintenance activities. Currently there are 14 wells operating in the Off-site area and 12 wells operating in the On-Site area.

The installation of the new heat exchanger for Thermal Oxidizer/Scrubber Unit 1 (Therm Ox 1) is scheduled for August 30th. A crane lift will be performed to remove the old heat exchanger and place the new heat exchanger. In addition, the crane will be used to place a knock tank next to the new heat exchanger. Appropriate health and safety procedures will be followed during the crane lifts.

Ryan Construction is approximately 95 percent complete with installation of the mechanical components of the Off-Site ISVE expansion equipment including the connection piping. It is anticipated that Ryan will complete this work on August 20th. Ausgen Electric is scheduled to begin wiring the electrical and control connections for the new equipment the week of August 30th and complete the work during the first week of September.

The removal and replacement of one ISVE well and one air sparge point in the SBPA began on August 19th. Wells in the area that the overdrilling is to be performed were switched on to draw vapors away from the work area during the morning before intrusive activities were started. Then, just before the drilling was started, the SBPA ISVE system was shut down as a safety precaution.

SBPA Final Cover

Compaction testing of the gravel was completed on August 13th. The results indicated that the compaction effort has met the requirement of 90 percent of the Proctor value. During the week of August 23rd, the final concrete pours will be completed around the ISVE wells, final grading of the gravel will be completed, and an inspection of the gravel layer will be done by MWH and the paving contractors. The gravel layer will then be surveyed during the week of August 30th. The anticipated start date for paving is September 7th, with construction of a pavement test pad. The paving for the SBPA cover will then be performed on September 9th and 10th.

Wetlands Access Path

The construction of the wetlands access path is scheduled to be performed the week of August 23rd. The alignment of the far southwest path has changed to make the path shorter. The change in the alignment will still be within the Indiana Department of Environmental Management's (IDEM's) acreage limit. However, MWH will confirm with IDEM if a revised figure or other information if required to be submitted.

Chemical Oxidation Application

The schedule for the first phase of the full-scale chemical oxidation application has been changed to begin on August 30th with an anticipated completion date of September 24th. The soil gas sampling at the residence near the corner of Colfax Ave. and Reder Rd. will be completed on August 30th. MWH is still working out the details with the residents at the property so that they will not be inconvenienced or endangered by the work. On the

first day of Chem-Ox application, MWH will mark the extents of the application area and the injection locations for the first day of application prior to commencing work and the Agencies can provide recommendations and approvals of the application area and injection locations. Only one drill rig will be used to perform the work. However, the rig will be configured so that it can do four injections simultaneously.

Third Quarter 2004 Groundwater Monitoring and Sampling Event

The Third Quarter 2004 groundwater monitoring and sampling event is scheduled to begin on September 20th with collection of groundwater elevations. The groundwater sampling will performed from September 21st to September 28th. Along with the sampling, maintenance will be performed on various wells. This work will entail replacing broken locks and well redevelopment.

In addition to the groundwater monitoring and sampling event, MWH will simultaneously perform the annual residential well sampling. On August 6th, a letter was sent to the Agencies specifying the residential wells that will be sampled.

Look Ahead Schedule

August 20, 2004 through August 26, 2004	• Off-Site ISVE system and SBPA ISVE system operation and routine maintenance • GWTP/BWES/PGCS operation and routine maintenance • Continue work on Off-site blower system expansion • Continue work preparing the SBPA cover area for placement of the asphalt layer • Removal and replacement of one ISVE well and one air sparge point • Processing GWTP acid from leak cleanup • Finish wetlands path
Health and Safety Items to Monitor	• Potential exposure to vapors during well drilling. All drilling personnel will wear Level B PPE • Safety issues associated with the SBPA asphalt work • Safety issues associated with the Off-Site expansion. The system will be shut down while personnel work on the electrical portions of the blower building. • Safety issues associated with crane lift for the new heat exchanger. • Routine daily tailgate health and safety meetings for all work activities

Next Construction Meeting – Thursday, August 26, 2004, 10 AM. It was agreed that for the month of September, we will plan to hold construction meetings every week.

JDP/RAA/PJV
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Weekly Oversight Summary Report No. 182
ACS Superfund Site WA57, 46526.238

Reporting Period: Week of August 23, 2004.
BVSPC O/S Dates: August 26, 2004 (Mr. Campbell)

Personnel Summary Affiliation	No. of Personnel	Responsibility
Montgomery Watson Harza	4	Respondent's General Contractor
Black & Veatch Special Projects Corp.	1	USEPA Oversight Contractor
Ryan Construction	1	Mechanical Contractor
Austgen	1	General Contractor

Construction Activities

Major Activities:

- Montgomery Watson Harza continued operating the groundwater treatment plant and the in-situ soil vapor extraction systems.
- Ryan continued making piping connections for the auxiliary blower.
- Ryan poured concrete slabs around remaining soil vapor extraction wells.
- Montgomery Watson Harza held the construction coordination meeting at the site on August 26, 2004.

Activities Performed:

Montgomery Watson Harza (MWH) reported that the diluted leaked sulfuric acid is still being temporarily stored in a group of poly tanks within secondary containments. MWH reported that it plans to purchase and install a 900 gallon poly tank to replace the acid tank that leaked. MWH plans to transfer 900 gallons of the diluted sulfuric acid into the new tank. The remainder of the diluted acid will be disposed of, recycled, and/or reused off-site. MWH is currently pumping sulfuric acid into the groundwater treatment plant (GWTP) system from a 55-gallon drum that does not have independent secondary containment. MWH is planning to provide such secondary containment for this drum.

MWH reported that it continued to operate the GWTP at 30 gpm and that it performed normal maintenance activities on a filter press pump and a feed pump. MWH continued to operate the On-Site Containment Area (ONCA) Still Bottoms Pond Area (SBPA) and Off-Site Containment Area (OFCA) in-situ soil vapor extraction (ISVE) systems, processing vapors through the Global thermal oxidizer unit 2.

The OFCA ISVE system continues to operate with 14 wells. Ryan continued making piping modifications to connect the auxiliary and existing blower systems; accordingly, the OFCA ISVE blower system was shut down, as needed, during this construction period. The ONCA SBPA ISVE system continues to operate

with 12 wells; however, MWH is now operating a different group of 12 wells that may produce more vapors than the previous group. MWH reported that Ryan poured concrete pads around the remaining stick-up wells.

Black & Veatch Special Projects Corp. attended MWH's biweekly construction coordination meeting at the site on August 26, 2004.

Topics of Concern:

- Air monitoring activities during Eagle Services work vacuuming the ONCA SBPA ISVE system wells were not clearly established with respect to volatile organic compounds.
- The sulfuric acid tank in the GWTP leaked into the secondary containment. BVSPC expressed concern that a job hazard analysis had not been prepared or evaluated for the work of transferring the acid and cleaning the leaking tank.

Concern Resolution:

- MWH reported that it will evaluate procedures that were established for other work activities and determine an appropriate monitoring plan for future activities related to the ONCA SBPA ISVE system wells.
- MWH transferred the leaked and diluted sulfuric acid into poly tanks for temporary storage. MWH completed an incident form detailing the incident that occurred and the health and safety procedures that would be followed when mitigating the incident.

Upcoming Activities:

- MWH to install the new heat exchanger for the Durr thermal oxidizer unit 1.
- MWH to install a new knockout tank in the ISVE system near the GWTP.
- MWH to complete expansion of the OFCA ISVE blower system.
- MWH to continue proving out the ONCA SBPA ISVE system wells.
- MWH to continue operating the GWTP and the OFCA and ONCA SBPA ISVE systems.
- MWH to complete placement of the final SBPA asphalt cover.
- MWH to place the wood chips in the wetland paths to the monitoring wells.
- MWH to evaluate soil vapor intrusion into the house basement resulting from the smear zone in the South Area.
- MWH to initiate chemical oxidation injections in the off-site South Area plume.
- MWH to perform monitoring well maintenance and conduct third quarter groundwater sampling of monitoring wells and residential wells.
- MWH to investigate benzene levels in the lower aquifer in the wetlands area.
- MWH and EPA to conduct Pre-Final Inspection of construction in early September.

Signature: Larry Campbell Date: August 27, 2004

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WEEKLY CONSTRUCTION MEETING MINUTES FOR AUGUST 26, 2004 MEETING AMERICAN CHEMICAL SERVICE, NPL SITE GRIFFITH, INDIANA

MEETING DATE: Thursday, August 26, 2004

MEETING TIME: 10:00 AM

MEETING LOCATION: ACS

ATTENDEES:
Larry Campbell – BVSPC
Mark Travers - Environ
Pete Vagt – MWH
Lee Orosz – MWH
Richard McCarroll - MWH
Jon Pohl – MWH
Chad Smith – MWH
Matthew Mesarch – MWH
Amy Clore - MWH

TOPICS:

Health and Safety Summary
On August 25th, a maintenance worker of Augsten Electric cut his finger on the stainless steel shelf in a chemical pump. The injury was not serious and only required minor first aid treatment. There have been no other health and safety issues since the last meeting on August 19th.

Activities at the site since the last meeting have included operation of the GWTP, regrading of the gravel layer in the Still Bottoms Pond Area (SBPA) cover area, pouring of concrete pads around SBPA in-situ vapor extraction (ISVE) wells, installing the equipment for the new blower shed in the Off-Site area, and operation of the Off-Site Area and SBPA (On-Site) ISVE systems.

Groundwater Treatment Plant (GWTP) Status
The GWTP is currently operating at 30 gallons per minute (gpm). There have been no issues with the GWTP since the last meeting on August 19th. Routine maintenance was performed on the filter press pump and the chemical feed pump. A load of filter cake is scheduled to be shipped for disposal on August 30th.

Off-Site Area/SBPA ISVE Systems

Thermal Oxidizer/Scrubber Unit 2 (Therm Ox 2) is currently treating vapors from the Off-Site ISVE system and the SBPA ISVE system. Therm Ox 2 was temporarily shutdown on August 23rd to clean the conveyance line and was also temporarily shutdown on the 26th due to an inoperative process valve. Therm Ox 2 was taken apart and the valve was re-lubricated and the unit was brought back online the same day. Currently there are 14 wells operating in the Off-site Area and 12 wells are operating in the On-Site Area. On August 25th, MWH brought 12 different On-Site Area ISVE wells online, taking the previous 12 wells offline. All the new wells brought online have been proven to produce vapor flow.

The arrival of the new heat exchanger for Thermal Oxidizer/Scrubber Unit 1 (Therm Ox 1) is scheduled for August 31st. A crane lift will be performed to remove the old heat exchanger and place the new heat exchanger. Appropriate health and safety procedures will be followed during the crane lifts. It is anticipated that the unit will be online by the week following the installation.

Ryan Construction is approximately 95 percent complete with installation of the mechanical components of the Off-Site ISVE expansion equipment including the connection piping. Austgen Electric is scheduled to begin wiring the electrical and control connections for the new equipment the week of August 30th and complete the work during the first week of September.

The On-Site ISVE system was temporarily shut down throughout the past week as a health and safety precaution while instrusive activities were being conducted in the SBPA well field. The system was down on August 19th and 20th while the well removal and reinstallation took place as well as on August 23rd while concrete placement around ISVE wells was performed.

SBPA Final Cover

The final concrete pours around the ISVE wells and final grading of the gravel are scheduled for completion on August 27th. An inspection of the gravel layer by MWH and the paving contractor and an initial survey of the gravel layer will both be completed during the week of August 30th. The anticipated start date for paving is September 7th, with construction of a pavement test pad. The paving for the SBPA cover will then be performed on September 9th and 10th.

Wetlands Access Path

Due to the busy work schedule of Augsten Equipment, as well as wet weather conditions, the construction of the wetlands access path has been rescheduled and is expected to be begin within the next two to three weeks.

Chemical Oxidation Application

The first phase of the full-scale chemical oxidation application will begin on August 30th with an anticipated completion date of September 24th.

The soil gas sampling at the residence near the corner of Colfax Ave. and Reder Rd. will be completed on August 30th. On August 26th, MWH met with the residents at the property to coordinate the work schedule and to minimize inconvenience and eliminate the chance for endangerment from the work.

Third Quarter 2004 Groundwater Monitoring and Sampling Event

The Third Quarter 2004 groundwater monitoring and sampling event is scheduled to begin on September 20th with collection of groundwater elevations. The groundwater sampling will performed from September 21st to September 28th. Along with the sampling, maintenance will be performed on various wells. This work is scheduled to take place on September 16th and 17th and will entail replacing broken locks and well redevelopment.

MWH will also conduct the annual residential well sampling during this timeframe. On August 6th, a letter was sent to the Agencies specifying the residential wells that will be sampled.

Look Ahead Schedule

August 27, 2004 through September 2, 2004	• Off-Site ISVE system and SBPA ISVE system operation and routine maintenance • GWTP/BWES/PGCS operation and routine maintenance • Start up of full scale Chem Ox application • Continue work on Off-Site blower system expansion • Continue work preparing the SBPA cover area for placement of the asphalt layer • Shipment of filter cake to disposal facility • Heat Exchanger delivery for Therm Ox 1 • Finish wetlands path
Health and Safety Items to Monitor	• Safety issues associated with the Chem Ox application • Safety issues associated with the SBPA asphalt work • Safety issues associated with the Off-Site expansion. The system will be shut down while personnel work on the electrical portions of the blower building. • Safety issues associated with crane lift for the new heat exchanger. • Routine daily tailgate health and safety meetings for all work activities

Next Construction Meeting – Thursday, September 2, 2004, 10 AM.

ALC/JDP/RAA/PJV
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(52)

Chad Lacy 08/05/2004

7.55 ARRIVED ONSite @ ACS. Weather, Temp 68°-73.8° Light Breeze East. Sunny.

Present Today are the following:

LEE CROSZ MWH
Rich McCamill MWH
TERRY FRUST RYAN
Tim KirkLAND Austgeen
MIKE NITSEG Austgeen
DAN Gaccdona Austgeen
Mike Chenoweth Microbac

TODAYS Activities

- 10:00 CONSTRUCTION MEETING
- Austgeen is ON Site to Clear Paths to monitoring wells.
- General O&M ON water Treatmant + ISVE System.
- MONiter the excess Sulfuric Acid
- review progress w/ ONCA SBPA ISVE System.
- monitor the OFCA ISVE
- Review progress of the OFCA ISVE Blower & Knockout tank Addition
- Review progress of the replacement

Chad Lacy

(53)

Chad Lacy 08/05/2004

of the Durr thermal oxidizer heat exchanger

- review progress of the Condensate Knockout tank in GWTP for ISVE System
- Find out Status of the indoor air quality related to the South Area plume smear ZONE.
- Find out Status & progress ON the investigation of benzene levels in the lower aquifer below the wetlands AREA
- Status of the asphalt CAP ON the ONCA SBPA

8:21 Excess Sulfuric Acid continues to be Stored IN SECONDARY Containment in the front portion of the GWTP.

8:24 MWH Prepping for Bi-Weekly GWTP Sampling

9:08 Picture 8 Roll 61 Facing NE @ OFCA ISVE New Blower & Knockout Tank Enclosure.

9:10 Picture 9 Roll 61 Facing North @ OFCA ISVE New Blower & Knock out Tanks

Chad Lacy

(54)

Chad Lacy 08/05/2004

9:15 The Blower & Knockout Container is being measured for a Containment Liner.

9:37 Picture 10 Roll 61, Facing North of the North well area being Cleared out by Ryan.

9:45 Picture 11 Roll 61 Facing Southeastern Side the GWTP of Mike from Microblabs pulling an Effluent Sample.

10:00 Construction Meeting.

Onsite
Lee Crosse
Rich McCarroll.

Phone / Rain Dance
Keven Adler - EPA
Rob Adams - MWH
Chad Smith - MWH
Todd Lewis - MWH

New MWH Employee Richard McCarrol Rich will be in Charge of the ONCR Cover.

Health & Safety. Lee presented No problems. No incedents. Conducted Tool Box Talk w/ Everyone onsite each morning.

Chad Lacy

(53)

Chad Lacy 08/05/2004

- The GWTP is producing 30 gpm, there has been No major problems, General maintainance.
- Sulfuric Acid has No home but MWH is Closing in on a Solution, Lee Said This should be Taken Care of by Next meeting.
- ISVE ThermOx-2 is operational this week had a 3-4hr Shut Down for maintence. Now on Line.
- ThermOx-1 is Still Down. Vendor is 3 to 4 week Behind Schedule Although piping & Scrubber are in place. The heat exchange Should be Delivered By End of the month (August).
- Off-Site ISVE is operational w/ 14 wells, No change. MWH has had to shut the System Down During Day for Tie in of the New Blower & Knockout Tanks. The New Blk was Delivered on July 26th Blower, & Knockout were Delivered on August 4th and Placed in Blk Temporarily until the Containment (Spill) Can be Fitted this week and Eletrical Piping tie ins.

Chad Lacy

(56)

Chuck Lang 08/05/2004

On Site ISVE System is running with 12 wells.

+ MWH has Planned A Over Drilling Investigation of the On Site ISVE well that ARE NOT working.
The Over Drilling is Scheduled for Mobilization the 16th of August wl work Starting on 17th.
The work will be performed by Robert Longyear in Level B.
EPA had 7-items of Consern and Suggestions for the Proposed work Answer and Modification will be Captured in the meeting minute and Attached to the plan as an Addendum
EPA Suggestions

1&2 Increase Bore hole Diameter and Pack Size. MWH Does not feel this will Correct any problem Just Delay the problem.

3 Increase slot Size, which will be Done from .10 to .20.

4) How will MWH Test AIR sparg wells
- 24 hr Stabilization of well.
- Pressurizing well to Recharge psi @ 20 psi monitor for Pressure Lost.

(57)

Chuck Lang 08/05/2004

5) Shelb Tub
3 inch Shelb Tub will be used To obtain quantitative Data on the Capillary fringe. and will be installed 2-foot from Existing well Points.

6) Medical & Air Fit Testing
All work During Drilling will be Performed in Level B.

7) Bentonite Hydration
MWH Does Know the Difference in Hydrated Bentonite & Dry Bentonite.

Final Cap Placement to Start September 8th
Prior to placement of the Cap final Grading, Concrete work will Take Place. Starting Last week in August.
Grading has a ± 1ft" Tolerance.

Wet Land Path, The WET LANDS PATHS ARE Being installed as we speek, with an Expected Completion by End of week.
Chem Ox work in the South Plum -
MWH is waiting for EPA Comments Contracts and Permit are in order.
Kevin Sauck Confirmed his Comment will be given to MWH on Aug 6, 2004

Chad Smith 08/05/2004

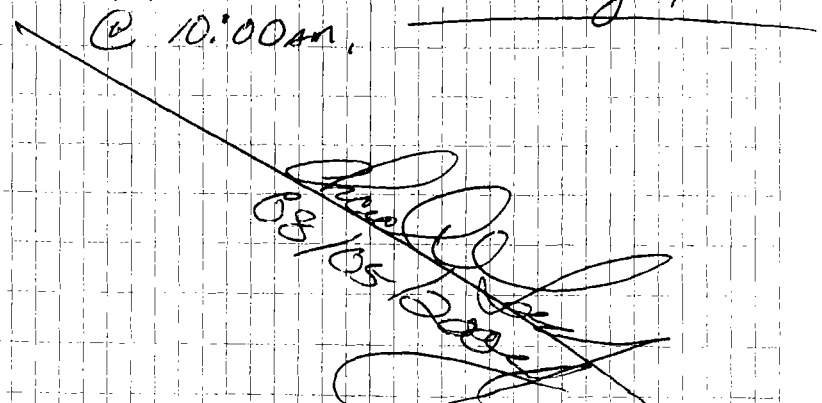
Kevin has No Significate Change on ISSUES.
The Chem Ox installation or Start Date Depends on GW Elevation the Target elevation is 631.
MWH will be onSite this week to measure water Levels.
Prior to Installation
- MWH Has to Talk again to Ron Astgen. owner of the House on Reeder Rd.
- Perform Air Monitoring outside the house to Astedlish Level or Need to go into the House.

The Chem Ox will Start as soon as possible there will be 380 point taking 3 to 4 week to install.
No Point will be in the Rd way @ this Time.
Chem Ox will be in 3 Phase Taking until June of 2005.
Gravel vault / Residential Well Monitoring will Take Place in the Next couple of weeks Chad Smith is issuing the Locks of interest

Chad Smith 08/05/2004

with Location of monitoring wells to be sampled this week.
General Info for
- Off Site ISVE upgrade
  Skid - July 26
  Blower & Knockout Aug 4
  Finish in September
- Over Drilling mob August 16th
- Cover Onsite Sept 4th placement
  - Grading Starts Aug 7th
  - followed by Concrete work
- Chem Ox End of August

11:00 Concluded the Meeting.
11:30 Left the Site for office.
Next Meet Scheduled for Aug 19th 2004 @ 10:00 AM.



CONTENTS

PAGE NO.	REFERENCE	DATE

11 Aug 04
0850 Arrive @ AES site
Clear & cool 62°F
Personnel onsite

Lee Orosz	MWH
Rich McCarrell	"
Terry Frisk	Ryan
Tim Kirkland	Austgen
Mitchell Runyon	Walsh & Kelly
Paul Mantel	"
Larry Campbell	BVSPC

0915 Photo 61-12 Looking E showing gravel cover of SBPA after grading and some compaction. Note concrete forms around wells & power poles.

0917 Photo 61-13 Looking SE at OFCA showing new blower shed addition

0923 Photo 61-14 Looking W at pond in wetlands

0926 Photo 61-15 Looking S at E end of wetland pond. Note new riprap at waters edge

0933 Photo 61-16 Looking N on N side of pond showing graded access path in wetland to MW23

0934 Photo 61-17 Looking NE at new grated access path to MW 33 in wetland

0951 Photo 61-18 Looking NW from wood chip pile showing MW 10 (L), PS4, 85, 86 (R) and pathway to other wetland monitoring wells

0955 Photo 61-19 Looking NW at new access path to MW 33, 30 & 31 (L→R)

0959 Photo 61-20 Looking NW at new access path to MW 53 (L) & MW 52 (R) w additional path on R to MW 13.

1007 Photo 61-21 Looking E at W end of SBPA interim gravel cover after grading of gravel (area earlier had erosion gullys).

1011 Photo 61-22 Looking E at form for concrete pad at W catch basin on S side of SBPA

1015 Photo 61-23 Looking E down into excav at ISVE 59 prior to being overdrilled and removed

Jay Caughey

1018 Photo 61-24 Looking S at Welsh & Kelly personnel grading gravel near SVE 63

1020 Photo 61-25 Looking S at AS5 after removal of conc pad in preparation to overdrill & remove AS-5

1025 Photo 61-26 Looking NW at Middle catch basin on S side SBPA cap showing concrete form

1100 Discussion w/ Lee Orosz
- Austgen cleared paths to wetland wells last week 5 & 6 Aug.
- Board Longyear delayed 1 week to overdrill and remove SBPA wells + AS pads. From 16 Aug to 23 Aug.
- South area water levels not yet measured to determine water level

1120 Disc w/ Rich re PVC sleeve around SVE wells. Ryan will caulk annulus between SS well and PVC sleeve

1130 Inspected construction of new blower equipment in OFCA. Austgen cutting in piping to connect units

1150 Left Site for Day

JM Caughey

(4)

19 Aug 04

0915 Arrive onsite
overcast, drizzle, 65°F

Personnel Onsite

Lee Oross	Mw H
Rich McCarrell	"
Terry Frish	Ryan
Matt Mesarch	Mw H
Tim Kirkland	Austgen
Jon Pohl	Mw H
Pete Vogt	Mw H
Chad Smith	Mw H
Mike Abercrombie	Microbac (Simulech)
Larry Campbell	BVSPC
Shelt Schuerman	Boeart Longyear
Bill Condon	"
Mike Maguire	"

0940 General briefing of Boeart Longyear staff in office trailer. Lee Oross & Chad Smith provide overview of planned activities

1000 Construction Mtg
See Notes later in report on pg 7-11

1030 Mtg over

JMJ Geraghty

(5)

1055 Boeart Longyear H&S Briefing
Lee provides briefing with input from Chad & Matt.

1115 Mtg over

1127 Photo 62-1 Looking S at AS5 w/ Lee & Matt removing carr supply line to measure total depth of AS5 for replacement. Note use of Level C respirators.

1137 Photo 62-2 Looking W at SVE 59. Matt taking measurements of well depth prior to overdrilling well.

1144 Photo 62-3 Looking SW at Boeart Longyear disassembling new AS5

1151 Photo 62-4 Looking E at SVE 64 showing new concrete pad Note white caulk between SS well and PVC sleeve

1157 Photo 62-5 Looking S at AS5 area showing absorbant pad to collect any contaminated soil from overdrilling

1200 - 1300 Lunch

1315 Photo 62-6 Looking N inside Conex Container at auxiliary blower & knockout Tank. Note secondary containment.

JMJ Geraghty

1318 Photo 62-7 Looking SE inside auxiliary blower shed showing knockout Tank & aux. blower.

1319 Photo 62-8 Looking N showing piping connections btwn new auxiliary and existing blower sheds

1340 Photo 62-9 Looking E showing Boart pulling auger from AS5 after installing new AS point

1345 Chad Smith reported they found 3.5' of silt in removed AS5. Screen length only 2.5' During earlier testing Mwest had not been able to force air into subsurface thru AS5.

1350 Photo 62-10 Looking N at Austgen drilling vapor piping hole into new 4" SS well riser for SVE 59

1356 Photo 62-11 Looking NE at Boart personnel decanning their PPE when leaving exclusion area at AS5

JM Campbell

CONSTRUCTION MTG MINUTES

Began @ 10 AM - Ended @ 10:30 AM

Attendees: at Site

- Pete Vagt, Lee Orosz, Rich McCarrell, Chad Smith, John Pohl & Matt Mesarch - MWH
- Larry Campbell - BVSPC

on Phone:

Kevin Adler - USEPA
Chris Daly - MWH

Health & Safety

No issues since last constr. mtg.

Did have incident last week when overhead door to GWTP disintegrated & portions fell out of its track. Overhead door company repaired - No injuries or property damage - other than to door.

During some work encountered nests of bees - called exterminator. No injuries

GWTP

Running at 27 gpm today. Has fluctuated between 25 & 30 gpm during last month. No problems - only normal Maintenance activities.

ISVE Systems

JM Campbell

Both OFCA SBPA & OFCA ISVE Systems running well, processing vapors thru thermox 2. Unit down 3 hr both Mon & Wed for maintenance and meter replacement. OFCA ave system down while making piping connections for new auxiliary blower.

SBPA Cap

Last week Walsh & Kelly completed grading & compaction of gravel cap. On Fr. 8/13, Midwest Engineering Services (MES) tested density of gravel at 25 locations using Nuclear densometer. All locations passed (>90% Proctor density).

Ryan placed some concrete pads around stockup wells & power poles.

Independent Envl. Svcs. did some trenching around perimeter of SBPA gravel cap.

OFCA ISVE

Ryan Const. continued placing piping to connect new auxiliary blower to existing blower

Access Pathways

Fabric has been ordered for pathways. Chad Smith noted pathway to MW-5 was modified from that planned. Probably shorter route than originally planned. MWH will update pathway drawing and recalculate impacted area. Also will contact IDEM

SBPA ISVE Investigation

Beard Longyear (BL) const. today & Friday to overdrill, remove and replace Air Sparge point AS-5 since SVE well SVE-5 - will replace with screen w/ #30 slot size (vs #10 originally).

MWH & BL will conduct tailgate H&S mtgs each day before working.

Electricity to SBPA blower shed has been locked out before drilling ops.

South Area Plume & Chemox treatment

ISOTEC and DPT driller to start Chemox injections in S. Area on ~~Mon~~ Aug 30; break for labor day then return for 10 day work period. ISOTEC has capability to inject multiple

JM Campbell

JM Campbell

locations at same time.
Most Measured Water level in South Area wells last week were from WL @ 632.8 ft Amsl. & OK to inject chem ox treatment to be effective in remediating Smear Zone.
Using another drilling Company Must will collect Soil Gas Sample at residence at 1002 Roder Rd.

Look Ahead

SBPA
8/23 Ryan to complete concrete pads late in week 8/23 Walsh & Kelly to inspect & accept pads for Concrete
8/30 Surveyor on site to survey elevs & travel prior to paving
9/6 Walk to Mob to site & place Test pad
9/9 9/10 Walk to place asphalt Cap
Mid wk 8/23 Austgen to wire auxiliary blower shed
Aug 30 - Thermal heat exchanger to arrive

Aug 30 - Crane lift of heat exchanger & new knockout tank at GWTP
Aug 30 Start Chem Ox injections
Aug 30 Take Soil Gas Samples
8/23 place chips in pathways
9/20 Residential well Sampling + WL measurements

Look Ahead HSS

BL overdrilling	8/19 & 20
Crane lifts	8/30
~~Asphalt~~ paving	9/6 - 10

Meeting Schedule - resume weekly Meetings thru Sept. because of much const. activity.
Next Mtg Thurs 8/26 @ 10 AM

Mtg Over @ 10:30 AM

Lee Orosz indicated plans to get replacement acid tank installed soon & to transfer diluted acid into new tank and use in plant opns. will dispose of remaining acid that doesn't fit into tank.

1500 Photo 62-12 Looking E at BL starting to excavate SVE 59.

1510 Photo 62-13 Looking E at BL pulling augers while keeping SVE well in ground

1512 Photo 62-14 Looking E at entire 10' length of auger + soil around SVE 59 after being pulled from ground

1515 Photo 62-15 Looking E at BL pulling SVE 59 well riser & screen

1521 Photo 62-16 Looking E at Rhett inspecting removed SVE 59 well screen

1530 Photo 62-17 Looking SE down at Screen from SVE 59. Slots are closed. Screen appears to have been twisted, closing slots - probably as result of rotation of augers during overdrilling. Spiral effect of vertical ribs is clear indication of rotation

1550 Photo 62-18 Looking E

Tim Campbell

at BL installing new SVE 59 well screen & ~~casing~~ riser.

1602 Photo 62-19 Looking S at Chad Smith monitoring the perimeter (exclusion zone) for Mercury vapor concentrations at same time from SVE 59 - No detections

1624 Photo 62-20 Looking SE at reinstalled SVE 59.

1625 Chad Smith stated BL will move forward 2' and take Shelby tube samples at this location.

1630 Left Site for the day

Tim Campbell

(14)

26 Aug 04

920 Arrive onsite. Cloudy rain earlier 70°F

Personnel onsite

Rich McCarroll *	MWH
Lee Cross *	MWH
Tim Kirkland	Austgen
Pete Vagt *	MWH
Chad Smith *	MWH
Larry Campbell *	BVPC

1000 Construction Meeting

• Personnel Attending

* Personnel above at site

Following personnel via phone

Jon Pohl	MWH
Amy Clare	MWH
Matt Misarek	MWH
Marie Travers	environ

H&S Minor issue - Tim Kirkland cut finger on SS shelf - Only required band aide.

GWTP Running at 30 gpm. No problems. Performed some Maintenance on filter press

JM Campbell

(15)

pump & feed pump

Thermex 2 Generally operating well. Was down today to replace "frozen" process valve. Now coming back to operating temperature. Was down for Monday to clean tubes.

Thermex 1 New heat exchanger to arrive next Tues. or Wed. Will have crane lift. Will then hook up and test unit

ISVE OFCA - No changes - still running on same group of wells. OFCA blower shut down during day while Ryan was connecting auxiliary blower skid. Auxiliary bldg ≈ 95% complete on Mechanical items. Then Austgen will install electronics

CMCA SBPA ISVE Still running but MWH connected to 12 different wells than previously used - because many of previous wells were not producing.

CMCA Final Cover Area ready for paving. Most remaining Concrete pads were poured early in Week.

Jm Campbell

Walsh & Kelly will inspect area next week to accept surface & will have surface surveyed. W&K will prepare test pad on Sept 7&8 then pave Sept 9-10

Wetland Access Path

Austgen to place mulch w/i next 2-3 weeks - when ~~[illegible]~~ free area is dryer.

Chem Ox Application

Pete & Allen met w/ tenant today to discuss operating in tenant's yard. No problems - Tenant gave met ay days when work will be performed.

Isotech to have kick off mtg at 8 AM Mon 8/30. Will set up & start injecting by noon. ~~Matt + [illegible]~~ Plan to complete by 9/24

Soil Gas Sampling

Boart Longyear will remob to site on 8/30 @ 10 AM to collect soil gas samples

Residential Well Sampling + 3Q tr

Matt will do well maint on 9/16 & 17. Will collect GW samples 9/20 — 9/30

Tom Campbell

Look Ahead Schedule

- operate GWTP & ISVE systems
- place SBPA final asphalt cover
- complete access pathways
- Chem Ox injections
- install Thermox / heat exchanger
- complete OPCA auxiliary blower
- ship offsite Haz waste filter cake

Look Ahead H&S

- Will have safety mtgs for all contractors.
- No work will require Level B.C.
- Crane lift on 8/31 or 9/1

Next Mtg Thur 9/2 @ 10 AM
Mtg over @ 10:25

1030 Merit plans to replace acid tank w/ new 900 gal poly tank + use diluted acid. Remainder of diluted acid to be transported ~~to~~ offsite for recycle / reuse.

10:45 Left site for day

Tom Campbell

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #8
Date: 08-05-04 Time: 09:08
Photographer: Chad Gailey
Description: Photo facing northeast showing OFCA ISVE auxiliary blower shed (Conex container).

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #9
Date: 08-05-04 Time: 09:10
Photographer: Chad Gailey
Description: Photo facing north showing new auxiliary blower and knockout tank stored in new auxiliary blower shed (Conex container).

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #10
Date: 08-05-04 Time: 09:37
Photographer: Chad Gailey
Description: Photo facing north showing Austgen grading paths to monitoring wells in wetlands northwest of GWTP.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #11
Date: 8-05-04 Time: 09:45
Photographer: Chad Gailey
Description: Photo facing southwest showing Semalabs taking an effluent sample from the GWTP.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #12
Date: 08-11-04 Time: 09:15
Photographer: Larry Campbell
Description: Photo facing east showing gravel cover of the SBPA after grading and some compaction. Note concrete forms around wells and power poles.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #13
Date: 08-11-04 Time: 09:17
Photographer: Larry Campbell
Description: Photo facing southeast showing OFCA and new auxiliary blower shed next to existing blower shed.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #14
Date: 08-11-04 Time: 09:23
Photographer: Larry Campbell
Description: Photo facing west showing pond excavated in wetlands

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #15
Date: 08-11-04 Time: 09:26
Photographer: Larry Campbell
Description: Photo facing south at east end of wetland pond. Note new riprap at water's edge (relocated from catch basin grate areas in the SBPA).

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #16
Date: 08-11-04 Time: 09:33
Photographer: Larry Campbell
Description: Photo facing north on north side of wetland pond showing new graded access pathway to MW23.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #17
Date: 08-11-04 Time: 09:34
Photographer: Larry Campbell
Description: Photo facing northeast showing new graded access pathway to MW23 (in center of picture).

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #18
Date: 08-11-04 Time: 09:51
Photographer: Larry Campbell
Description: Photo facing northwest from wood chip pile showing MW10C (L), P84, P85 & P86 (R), and pathway (C) to other wetland monitoring wells.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #19
Date: 08-11-04 Time: 09:55
Photographer: Larry Campbell
Description: Photo facing northwest showing new graded access pathway to MW33, MW30, and MW51 (L to R).

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #20
Date: 08-11-04 Time: 09:59
Photographer: Larry Campbell
Description: Photo facing northwest showing new access path to MW53 (L) and MW52 (R) with additional path on right to MW13.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #21
Date: 08-11-04 Time: 10:07
Photographer: Larry Campbell
Description: Photo facing east at west end of SBPA gravel cover after grading of gravel (area previously had erosion gulleys).

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #22
Date: 08-11-04 Time: 10:11
Photographer: Larry Campbell
Description: Photo facing east showing wood form for concrete pad at west catch basin on south side of SBPA.

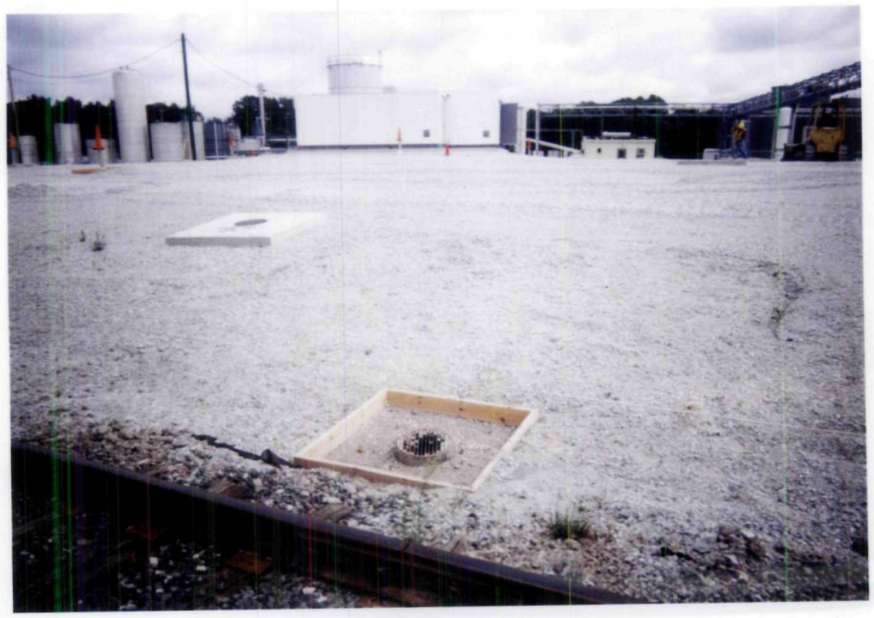
Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #23
Date: 08-11-04 Time: 10:15
Photographer: Larry Campbell
Description: Photo facing east down into excavation at SVE59 prior to being overdrilled and removed.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 61 Photo #24
Date: 08-11-04 Time: 10:18
Photographer: Larry Campbell
Description: Photo facing south showing Walsh & Kelly personnel grading gravel near SVE63.

Site: American Chemical Service, Inc.

Proj. #: 46526
Roll: 61 Photo #25
Date: 08-11-04 Time: 10:20
Photographer: Larry Campbell
Description: Photo facing south showing air sparge point AS5 after removal of concrete pad in preparation to overdrill and remove AS5.

Site: American Chemical Service, Inc.



Proj. #: 46526
Roll: 61 Photo #26
Date: 08-11-04 Time: 10:25
Photographer: Larry Campbell
Description: Photo facing northwest showing middle catch basin on south side of SBPA cap with wood form for concrete pad.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #1
Date: 08-19-04 Time: 1127
Photographer: Larry Campbell
Description: Photo facing south at AS5 showing MWH personnel removing air supply line so they could measure total depth of AS5 for its replacement. Note Level C respirators.

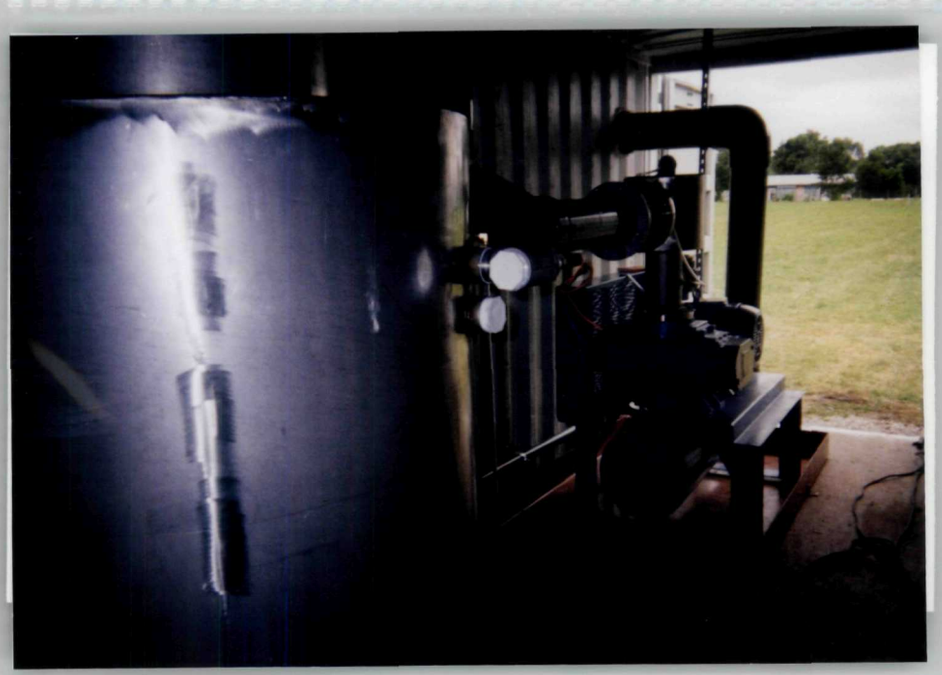
Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #2
Date: 08-19-04 Time: 1137
Photographer: Larry Campbell
Description: Photo facing west showing MWH taking measurements of well SVE59 depth prior to overdrilling the well.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #3
Date: 08-19-04 Time: 1144
Photographer: Larry Campbell
Description: Photo facing southwest showing Boart Longyear assembling the new AS5.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #4
Date: 08-19-04 Time: 1151
Photographer: Larry Campbell
Description: Photo facing east showing well SVE64 with new concrete pad. Note white caulk between well casing and PVC sleeve.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #5
Date: 08-19-04 Time: 1157
Photographer: Larry Campbell
Description: Photo facing south showing absorbent pad used at AS5 to collect any contaminated soil resulting from overdrilling.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #6
Date: 08-19-04 Time: 1315
Photographer: Larry Campbell
Description: Photo facing north into Conex container showing auxiliary OFCA blower, knockout tank, and secondary containment.



Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #7
Date: 08-19-04 Time: 1318
Photographer: Larry Campbell
Description: Photo facing southeast from inside OFCA auxiliary blower shed showing knockout tank, auxiliary blower, and secondary containment.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #8
Date: 08-19-04 Time: 1319
Photographer: Larry Campbell
Description: Photo facing north showing piping connections between new auxiliary and existing OFCA blower sheds.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #9
Date: 08-19-04 Time: 1340
Photographer: Larry Campbell
Description: Photo facing east showing Boart Longyear pulling auger from AS5 after installing new AS5 point.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #10
Date: 08-19-04 Time: 1350
Photographer: Larry Campbell
Description: Photo facing north showing Austgen drilling vapor piping hole into new 4" stainless steel riser pipe for SVE59.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #11
Date: 08-19-04 Time: 1356
Photographer: Larry Campbell
Description: Photo facing northeast at Boart Longyear personnel deconning their PPE when leaving the exclusion area at AS5.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #12
Date: 08-19-04 Time: 1500
Photographer: Larry Campbell
Description: Photo facing east showing Boart Longyear starting to overdrill SVE59. Note absorbent pad to collect contaminated drill cuttings.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #13
Date: 08-19-04 Time: 1510
Photographer: Larry Campbell
Description: Photo facing east showing Boart Longyear pulling augers while keeping SVE59 in ground.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #14
Date: 08-19-04 Time: 1512
Photographer: Larry Campbell
Description: Photo facing east showing entire 10' length of auger and soil from around SVE59 after being pulled from ground.

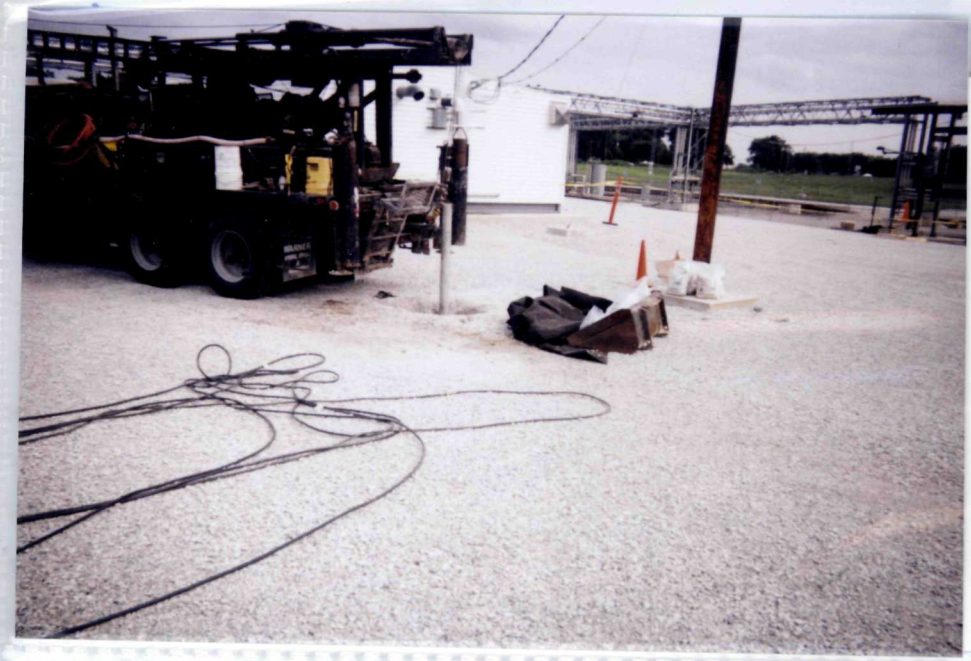
Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #15
Date: 06-16-04 Time: 1515
Photographer: Larry Campbell
Description: Photo facing east showing Boart Longyear pulling old SVE59 well riser and screen from ground.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #16
Date: 08-19-04 Time: 1521
Photographer: Larry Campbell
Description: Photo facing east showing MWH inspecting removed SVE59 well screen.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #17
Date: 08-19-04 Time: 1530
Photographer: Larry Campbell
Description: Photo facing northeast showing SVE59 screen. Note slots are closed and screen appears twisted - probably from rotation of augers during overdrilling.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #18
Date: 08-19-04 Time: 1550
Photographer: Larry Campbell
Description: Photo facing east showing Boart Longyear installing new SVE59 well screen and riser.

Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #19
Date: 08-19-04 Time: 1602
Photographer: Larry Campbell
Description: Photo facing south showing MWH monitoring the perimeter of the exclusion area for VOC concentrations - none detected



Site: American Chemical Service, Inc.
Proj. #: 46526
Roll: 62 Photo #20
Date: 08-19-04 Time: 1624
Photographer: Larry Campbell
Description: Photo facing southeast showing reinstalled SVE59.